

Title (en)
DETERMINATION OF RHEOLOGY OF FLUID IN AN OIL OR GAS WELL

Title (de)
BESTIMMUNG DER RHEOLOGIE VON FLUID IN EINEM ÖL- ODER GASBOHRLOCH

Title (fr)
DÉTERMINATION DE LA RHÉOLOGIE D'UN FLUIDE DANS UN Puits DE PÉTROLE OU DE GAZ

Publication
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Application
EP 20834448 A 20200702

Priority
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• US 2020040652 W 20200702

Abstract (en)
[origin: US2021002970A1] The invention relates to the measurement of the rheology of drilling fluid down a hydrocarbon well in real time during operations. A sensor device comprising a pipe rheometer with multiple diameters is installed in a bottom hole assembly tool, such that a portion of the total flow of drilling fluid passes through it. In this way the rheological properties of the drilling fluid can be determined under the high pressures and elevated temperatures encountered downhole.

IPC 8 full level
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G01N 2011/0026 (2013.01 - EP)

Citation (search report)
• [XYI] US 2018058992 A1 20180301 - VAN OORT ERIC [US], et al
• [X] US 3885429 A 19750527 - MEGYERI MIHALY, et al
• [XI] US 2003029640 A1 20030213 - COOPER IAIN [US]
• [Y] US 2019178770 A1 20190613 - MARUM DANIELA MARTINS [DE], et al
• [A] US 3468158 A 19690923 - CHIEN SZE-FOO
• See also references of WO 2021003362A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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EP 3994337 A1 20220511; EP 3994337 A4 20220727; EP 3994337 B1 20240228; WO 2021003362 A1 20210107

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